Claims

1. A method of routing a call from a circuit switched telecommunications network to a packet switched telecommunications network, wherein the circuit switched telecommunications network is provided with an access to a user register (HLR), comprising the steps of:

sending from a first network element (GMSC) of the circuit switched telecommunications network a first routing information query (SRI1) to an second network element (SLRF), said query including a destination identifier (E.164) of the called party,

sending a response message (SRI-Ack) to the first network element (GMSC), said response message comprising routing information (RSI) to the packet switched telecommunications network,

sending from the first network element (GMSC), according the routing information (RSI), a set-up message (IAM) to the packet switched telecommunications network, said set-up message comprising the destination identifier (E.164) of the called party,

and when the call has been returned from the packet switched telecommunications network back to the circuit switched telecommunications network:

sending from the first network element (GMSC) a second routing information query (SRI2) to the second network element (SLRF),

sending in response to the second routing information query (SRI2) a query message to the user register.

2. The method as in claim 1, wherein the second element is an

element performing subscriber locator routing function (SLRF).

3. The method as in claim 1, further comprising the step of:

including to the second routing information query (SRI2) the destination identifier (E.164) of the called party.

4. The method as in claim 1, further comprising the step of:

including to the second routing information query (SRI2) a second identifier in order to differentiate the first information query message (SRI1) and the second information query message (SRI2).

5. The method as in claim 4, further comprising the step of:

including in the packet switched network side the second identifier to the message returning the call from the packet switched network to the circuit switched network.

6. The method as in claim 1, further comprising the step of:

forming the query message to the user register as a standard query message according circuit switched telecommunications network.

7. The method as in claim 1, further comprising the step of:

including into said query message the first identifier of the called party.

8. The method as in claim 1, further comprising the step of:

returning the call from packet switched network to a different first network element than the one sending the set up message to the packet switched network.

9. The method as in claim 1, further comprising the step of:

sending from the user register to the first network element routing information for routing the call to the called party.

10. The method as in claim 1, wherein the destination identifier is an E.164 number.

11. The method as in claim 1, wherein the first network element is a gateway mobile switching center of a mobile telecommunications network.

12. The method as in claim 1, wherein the user register is a home location register of a mobile telecommunications network.

13. The method as in claim 1, wherein the packet switched telecommunications network is an Internet multimedia subsystem.

14. A method for routing a call from a circuit switched telecommunications network to a packet switched telecommunications network , wherein the circuit switched telecommunications network is provided with an access to an user register (HLR), comprising the steps of:

sending from a first network element (GMSC) a first routing information query (SRI1) to a second network element (SLRF), said query including the destination identifier (old E.164) of the called party,

allocating a new destination identifier (new E.164) to the call,

sending a response message (SRI-Ack) to the first network element (GMSC), said response message comprising routing information (RSI) to the packet switched telecommunications network,

sending from the first network element, according the routing information (RSI), a set-up message (IAM) to the packet switched telecommunications network, said set-up message including the new destination identifier (new E.164) of the called party,

and when the call has been returned from the packet switched telecommunications network back to the circuit switched telecommunications network:

sending from the first network element (GMSC) a second routing information query (SRI2) to the second network element (SLRF),

sending in response to the second routing information query (SRI2) a query message to the user register.

15. The method as in claim 14, wherein the second element is an
element performing subscriber locator routing function (SLRF).

16. The method as in claim 14, further comprising the step of:
including to the second routing information query (SRI2) the new destination identifier (new E.164) of the called party.

17. The method as in claim 14, further comprising the step of:

forming the query message to the user register as a standard query message according circuit switched telecommunications network.

18. The method as in claim 17, further comprising the step of:

including into said query message the first identifier of the called party (old E.164).

19. The method as in claim 14, further comprising the step of:

returning the call from packet switched network to a different first network element than the one sending the set up message to the packet switched network.

20. The method as in claim 14, further comprising the step of:

sending from the user register to the first network element routing information for routing the call to the called party.

21. The method as in claim 14, wherein the destination identifier is an E.164 number.

22. The method as in claim 14, wherein the first network element is a gateway mobile switching center of a mobile telecommunications network.

23. The method as in claim 14, wherein the user register is a home location register of a mobile telecommunications network.

24. The method as in claim 14, wherein the packet switched telecommunications network is an Internet multimedia subsystem.

25. A network element (SLRF) for receiving routing inquiries from and sending responses to a first network element (GMSC) in a circuit switched telecommunications network,

said network element (SLRF) having a signaling connection with a user register (HLR) and, said network element comprising:

means for receiving a first routing inquiry (SRI1) from the first network element (GMSC), said query including a destination identifier (E.164) of a called party,

means for forming and sending a response (SRI-Ack) to the first routing inquiry (SRI1), the response comprising routing information (RSI) to the packet switched telecommunications network,

means for receiving a second routing inquiry (SRI2) from the first network element (GMSC), and

means for forming a query message for sending to the user register.

26. A network element as in claim 25, further comprising:

means for allocating, in response to the first routing inquiry, a new destination identifier (new E.164) and

means for including the new destination identifier (new E.164) to the routing information (RSI) send to the first network element.

27. A network element as in claim 25, further comprising:

means for including the destination identifier (E.164) to the query message sent to the user register.